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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/510,966 | 02/21/2000 | Rohit V Gaikward | 1789-01910 | 1682 |

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CONLEY ROSE, P.C.

P. O. BOX 3267

HOUSTON, TX 77253-3267

EXAMINER

TIEU, BINH KIEN

ART UNIT

2643

PAPER NUMBER

7

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/510,966

Applicant(s)

GAIKWARD ET AL.

Examiner

BINH K. TIEU

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Terry (US Pat. #: 6,339,613).

Regarding claim 1, Terry teaches a communication system, as shown in figures 1 and 2, that comprises:

a subscriber modem (i.e., ADSL modem 20);

a central office modem (i.e., C.O. ADSL modem 18); and

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a communication channel coupled between the subscriber modem and the central office modem (i.e., communications line 10, 16 or 22) and configured to transport uplink signals from the subscriber modem to the central office modem, and further configured to transport downlink signals from the central office modem to the subscriber modem (col.5, lines 17-38),

Wherein the power spectral density of the transmitted uplink signals is proportional to the power spectral density of the transmitted downlink signals (col.6, lines 1-21 and col.12, lines 34-40).

Regarding claim 2, Terry teaches a communication system, as shown in figures 1 and 2, that comprises:

a subscriber modem (i.e., ADSL modem 20);

a central office modem (i.e., C.O. ADSL modem 18); and

a communication channel coupled between the subscriber modem and the central office modem (i.e., communications line 10, 16 or 22) and configured to transport uplink signals from the subscriber modem to the central office modem, and further configured to transport downlink signals from the central office modem to the subscriber modem (col.5, lines 17-38),

Wherein at frequencies below a selected frequency $M_{sub.E2F}$, the power spectral density of the transmitted uplink signals is proportional to the power spectral density of the transmitted downlink signals by a positive scale factor, and

Wherein at frequencies above $M_{sub.E2F}$, the power spectral density of the uplink signals are limited to one or more uplink frequency bands and the downlink signals are limited to one or more downlink frequency bands that are disjoint from the uplink frequency bands, and wherein the total bandwidth of the uplink frequency bands is proportional to the total band width of the

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downlink frequency bands by the same positive scale factor (col.6, lines 1-54, col.8, lines 49-67; and col.12, lines 34-40).

Regarding claim 3, Terry teaches a communication system, as shown in figures 1 and 2, that comprises:

a subscriber modem (i.e., ADSL modem 20);

a central office modem (i.e., C.O. ADSL modem 18); and

a communication channel coupled between the subscriber modem and the central office modem (i.e., communications line 10, 16 or 22) and configured to transport uplink signals from the subscriber modem to the central office modem, and further configured to transport downlink signals from the central office modem to the subscriber modem (col.5, lines 17-38),

Wherein when the connection is initiated, frequency bands are allocated to the uplink and downlink power signals so that the total uplink and downlink capacity is maximized over the channel for predetermined uplink and downlink average signal power (col.11, line 16 – col.12, line 15);

Wherein the predetermined uplink and downlink average powers are unequal (col.3, lines 14-21).

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Conclusion

Although the Ryoo (US. Pat. #: 6,061,427) and Gross et al. (US. Pat. #: 6,549,520) are not applied into this Office Action, they are also called to Applicants attention. They may be used in future Office Action(s). Both these references are also concerned with adjustments of power spectral density of uplink and downlink signals.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh K. Tieu whose telephone number is (703) 305-3963 and E-mail address: BINH.TIEU@USPTO.GOV.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (703) 305-4708 and **IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (703) 306-0377 FOR THE SUBSTITUTIONS OR COPIES.**

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist, tel. No. 703-305-4700).

A handwritten signature in black ink, appearing to read "Binh K. Tieu", with a long horizontal line extending to the right.

**BINH TIEU
PRIMARY EXAMINER**

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Date: November 14, 2003